



State of Utah

Department of Natural Resources

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Division of Oil, Gas & Mining

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Lieutenant Governor

November 7, 2006

CERTIFIED RETURN RECEIPT
7004 2510 0004 1824 4219

David Taylor
Miracle Rock Mining and Research
400 South 200 East
P. O. Box 76
Emery, Utah 84522

Subject: Third Review of Notice of Intention to Commence Large Mining Operations, Miracle Rock Mining and Research, The Rockland Mine, M0150040, Task 1507, Emery County, Utah

Dear Mr. Taylor:

The Division has completed its review of your Notice of Intention to Commence Large Mining Operations for The Rockland Mine, located in Emery County, Utah, which was received August 15, 2006. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. **Please address only those items requested in the attached technical review** by sending replacement pages of the original mining notice using redline and strikeout text, so we can see what changes have been made. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two clean copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records.

If you have any questions in this regard please contact me, Tom Munson, Paul Baker or Doug Jensen of the Minerals Staff. If you wish to arrange a meeting, please contact us at your earliest convenience.

According to the terms of cessation order MC2006-03-08-01, you have sixty days *not counting Division review time* to complete the Notice of Intention to Commence Large Mining Operations. This time starts on the day you receive this review and stops when the Division receives your response, so we encourage you to work diligently to respond quickly.

Thank you for your cooperation in completing this permitting action.

Sincerely,

Susan M. White
Mining Program Coordinator
Minerals Regulatory Program

SMW:PBB:pb
Attachment: Review
cc: John Blake, SITLA
P:\GROUPS\MINERALS\WPM015-Emery\M0150040-MiracleRock\Final\rev3-miraclerock.doc

REVIEW OF NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

Miracle Rock Mining and Research The Rockland Mine

M0150040
November 7, 2006

R647-4-105 - Maps, Drawings & Photographs

- 105.1 Topographic base map, boundaries, pre-act disturbance
The plan notes that map 105.E shows area to be disturbed or reclaimed over the life of the project.
There is no map 105.E in the plan. Please include this map in the plan. (DJ)
- 105.2 Surface facilities map
The legend notes that disturbed areas outlined on map 105.2 will be reclaimed.
Please note on the map which areas will receive various reclamation treatments shaded cross hatched or color coded to identify which reclamation treatments will be applied. (DJ)
- The outline on map 105.1 shows areas that will be disturbed and reclaimed.
The outline has not been completed west of the main portal. Please complete this outline. (DJ)
- 105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)
Section (c) which deals with variances to reclamation standards is shown as not applicable. In section (d), the plan notes that map 105.2 shows highwalls proposed to remain steeper than 45 degrees.
Highwalls proposed to remain steeper than 45 degrees require a variance to the rules. Please color code or show the areas where the highwalls will remain steeper than 45 degrees and include in the plan an application for a variance to leave these structures. In Section 110.2 of the plan it states "All highwalls will be shot off and contoured to a 2:1 slope" (DJ)

R647-4-106 - Operation Plan

- 106.2 Type of operations conducted, mining method, processing etc.
The plan notes that constant reclamation exists as high wall advances.
Please explain the term "constant reclamation" and show areas on the map where this reclamation has taken place. (DJ)
- 106.3 Estimated acreages disturbed, reclaimed, annually.
This section shows two acres of tailings disposal, but it does not appear any tailings are generated or disposed of on site. "Tailings" are waste materials resulting from the washing, concentrating, or treatment of ore. Please reclassify this two-acre area. (PBB)
- 106.5 Existing soil types, location, amount
Please provide information concerning the soil sample locations. The sample identified as "S STK PILE" has a pH of only 3.3, an extremely low value which would not allow

growth of most plant species, especially native plants in the area. It will be problematic if this sample is from a topsoil stockpile. (PBB)

Please indicate in the application how much soil is currently stockpiled. (PBB)

106.6 Plan for protecting & redepositing soils

If the sample with the low pH is from the refuse pile, please provide a plan for covering this pile with enough material to allow plant growth, probably about two feet. Material used to cover the refuse could consist of non-organic overburden covered with topsoil. (PBB)

Based on the volume of soil in existing and planned stockpiles, please provide a plan for redistributing the soil. How much soil will be available to spread over the site? (PBB)

In Section 110.5, the plan says roadways and landings will be ripped 18 inches deep. Please show surface preparation methods for the rest of the site. The disturbed area needs to be left very rough to allow water to stay where plants can use it. (PBB)

Section 106.5 of the plan notes that areas with 0-4 inches of soil cover will produce 403 cu yds of soil material per acre. Section 106.6 of the plan notes that only 258 cu yds of soil will be harvested from the acre proposed to be disturbed.

Please explain why this area that has similar soil cover will produce ~40% less soil. (DJ)

106.7 Existing vegetation - species and amount

It is unclear how the vegetation cover figure was derived. Based on the information from the transects, the Division suggests breaking out the understory and canopy vegetation cover values and including both of them in the plan. These values are 2.8 percent understory and 19.3 percent canopy coverage. The revegetation success standard is 15.5 percent. (PBB)

106.10 Location & size of ore, waste, tailings, ponds

Mining in this area has created an area noted as a mine landing. This area is essentially a cut into the hillside with spoils from the cut used as fill to create the landing. Please describe reclamation treatments planned that will recontour and reclaim these areas. (DJ)

Map 105.1 indicates that a refuse pile and two soil stockpiles are located at the site. Please indicate the amount of material contained in this pile. (DJ)

The plan does not indicate how the waste rock or reject material will be disposed of. Please include in the plan how this material will be used during reclamation. (DJ)

The one figure shows the name of "runoff pond", please provide a drawing of the size of this structure, outlet dimensions and the size of the drainage that it treats. Historic information on runoff in the area would be beneficial in determining the suitability of the runoff controls you have in place. (TM)

R647-4-107 - Operation Practices

107.1 Public safety & welfare

107.1.14 Posting warning signs

The plan indicates that blasting takes place at the site.
A sign describing the blasting protocol should be placed at the entrance to the site to warn the public of this practice. (DJ)

- 107.3 Erosion control & sediment control
Please show how erosion is minimized and sediment is kept from leaving the site. It is not apparent how the drainage is routed to the pond please describe this process as it exists on site.(TM)

R647-4-110 - Reclamation Plan

- 110.1 Current & post mining land use
Please include wildlife habitat as a land use in the mine area. (PBB)
- 110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed
The plan indicates that the portal will be sealed and backfilled.
Please provide a more detailed description on how the portals will be sealed and backfilled. (DJ)

The plan does not include a description on how the slopes now in place and that are being created, will be reclaimed.
Please include a description of how these slopes will be reduced to the required 3:1 slope. (DJ)

- 110.5 Revegetation planting program
The plan says seed will be broadcast applied and raked in the fall. If the seed is applied immediately after surface preparation—highly recommended—no raking should be necessary. (PBB)

As mentioned in Section 106.6 of this review, the surface needs to be left very rough. There are several methods to accomplish this, but two common methods are to rip with a dozer or to gouge using a trackhoe. Please include this commitment in the plan. (PBB)

The plan states that topsoil will be placed on the reclaimed areas during final reclamation. Please include in the plan the depth of the soil to be replaced and the number of acres that will receive this treatment. (DJ)

According to the plan, the refuse pile will be resloped then harrowed with a tractor. The Division recommends that the pile be either ripped or roughened by a trackhoe. Any ripping or harrowing needs to be done parallel to the contour. (DJ)

R647-4-113 - Surety

No surety estimate was included with the plan. Please include an estimate of the cost of reclamation of this site. (DJ)